

Cover Sheet: Request 12246

GIS2XXX: The Digital Earth

Info

Process	Course New Ugrad/Pro
Status	Pending at PV - University Curriculum Committee (UCC)
Submitter	Jane Southworth jsouthwo@ufl.edu
Created	1/22/2018 1:50:52 PM
Updated	2/20/2018 8:30:41 AM
Description of request	Focuses on how the Earth's surface is visualized, explored, and analyzed in digital formats (e.g. maps, satellite images, aerial photos). Provides an introduction to fundamental concepts of digital geographic data to understand the Earth environment and human society based on the vast quantities of geographic information in our ever-changing world.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CLAS - Geography 011609000	Jane Southworth		1/26/2018
No document changes					
College	Approved	CLAS - College of Liberal Arts and Sciences	Joseph Spillane		2/20/2018
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			2/20/2018
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

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Submitter: Jane Southworth jsouthwo@ufl.edu

Created: 1/22/2018 1:14:37 PM

Form version: 1

Responses

Recommended Prefix GIS

Course Level 2

Number xxx

Category of Instruction Introductory

Lab Code None

Course Title The Digital Earth

Transcript Title The Digital Earth

Degree Type Baccalaureate

Delivery Method(s) On-Campus

Co-Listing No

Co-Listing Explanation none

Effective Term Earliest Available

Effective Year Earliest Available

Rotating Topic? No

Repeatable Credit? No

Amount of Credit 3

S/U Only? No

Contact Type Regularly Scheduled

Weekly Contact Hours 3

Course Description Focuses on how the Earth's surface is visualized, explored, and analyzed in digital formats (e.g. maps, satellite images, aerial photos). Provides an introduction to fundamental concepts of digital geographic data to understand the Earth environment and human society based on the vast quantities of geographic information in our ever-changing world.

Prerequisites none

Co-requisites none

Rationale and Placement in Curriculum Our department (Geography) offers 3000 level courses and up, in aerial photography, GIS, programming, Digital image processing, remote sensing [all the geographic techniques] but we do not have a gateway introductory course. This has been a significant gap and has been brought to our attention by the undergraduates. Looking across other Geography departments we saw that such an introductory course was common and with new hires we are now able to free up a faculty member to offer this course every semester. This field is one of the main areas for hiring and growth in Geography so an introductory course is past due!

Course Objectives Learning Outcomes: Upon successful completion of this course students will be able to:

- Understand the basic concepts and principles in processing digital geographic data.
- Collect, map and analyze spatial data as a mechanism to understand our physical and social world.
- Make use of online resources of aerial photos, satellite images and maps in various formats.
- Think spatially and develop problem-solving skills with critical understanding of geographic context.
- Demonstrate the ability to reason and communicate using map-based technologies such as

online maps, Google Earth, mobile GIS and web APPs.

Course Textbook(s) and/or Other Assigned Reading Textbook: Bradley A. Shellito, 2015. Introduction to Geospatial Technologies. 3rd Edition. W. H. Freeman and Company, a Macmillan Higher Education Company

Weekly Schedule of Topics Topics: [items starting with E are the class exercises to introduce students to the technologies being discussed]

Introduction to Digital Earth

Introduction to Geospatial technologies

Where in the spatial world are you?... Shape of Earth (1)

E1: Digital Earth (exploring Google Earth)

Where in the spatial world are you?... Shape of Earth (2)

From Globe to Map: map projection (1)

From Globe to Map: map projection (2)

E2: Coordinates & position measurements

Matching your data to reference: Georeferencing

E3: Viewing spatial data in ArcGIS

Collecting your data: GPS

Exploring your data: GIS

Midterm Exam Review

Midterm Exam

Exam overview

E4: GeoCaching (cellphone-GPS field lab)

E5: Digital Earth Application in Crime Pattern Analysis of Baltimore

Citizen Science: location-based service, web apps

Geospatial cloud;

E6: Mobile GIS for field data collection

Digital Streets

Earth observations: aerial and satellite imagery (1)

Earth observations: aerial and satellite imagery (2)

Introduce GeoHIVE project

E7: 3D Visualization

Class wrap-up

GeoHIVE Project Presentation

FINAL Exam

Links and Policies

More information on grades and grading policies is here:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Class Attendance and Make-Up Policy

Class attendance is expected. Each unexcused absence will result in a 10 point reduction in the final grade. Excused absences are consistent with university policies in the undergraduate catalog (<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>) and require appropriate documentation.

A makeup midterm and

makeup final exam will be provided for students who miss either exam due to extreme, documented circumstances. A cumulative make-up quiz will be provided at the end of the semester for any and all quizzes missed. This score will replace all missing quiz grades. Students should arrange with the instructor for makeup material, and the student will receive one week to prepare for any makeup assignment, if circumstances allow it.

Students Requiring Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this

procedure as early as possible in the semester.

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

Class Demeanor

Students are expected to arrive to class on time and behave in a manner that is respectful to the instructor and to fellow students. Please avoid the use of cell phones and restrict eating to outside of the classroom. Opinions held by other students should be respected in discussion, and conversations that do not contribute to the discussion should be held at minimum, if at all.

Materials and Supplies Fees

There are no additional fees for this course.

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conducthonor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Counseling and Wellness Center

Contact information for the Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Grading Scheme Course presentation:

Lectures: Primarily in a form of PowerPoint presentations. A short-version lecture note (pdf) will be uploaded to CANVAS prior to each class.

Exercises: For specific topics, exercises will be provided. All exercises will due in class. Late submission of exercised will not be accepted.

Quizzes: Pop-up quizzes related to previous lectures are given throughout the semester. No makeups unless you e-mail me your absence prior to the class. If you must miss class, you will need to get any material or announcements from a classmate.

Exams: This course has midterm exam and comprehensive final exam. All questions in the exams are covered in lectures. A brief study guide will be handed out prior to each exam.

Grading:

Pop-up Quizzes	10%
Exercises	

25%

Midterm Exam

25%

Final Exam:	30%
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GeoHIVE project	10%
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Total score

100%

Grading Policy

93.4-100 A 4.00

90.0-93.3 A- 3.67

86.7-89.9 B+ 3.33

83.4-86.6 B 3.00

80.0-83.3 B- 2.67

76.7-79.9 C+ 2.33

73.4-76.6 C 2.00

70.0-73.3 C- 1.67

66.7-69.9 D+ 1.33

63.4-66.6 D 1.00

60.0-63.3 D- 0.67

0-59.9 E 0.00

Instructor(s) Dr. Jane Southworth
jsouthwo@ufl.edu